ABSTRACT

A substrate support ring has a band having an inner perimeter that at least partially surrounds a periphery of the substrate. The band has a radiation absorption surface. A lip extends radially inwardly from the inner perimeter of the band to support the substrate. The band and lip can be formed from silicon carbide, and the radiation absorption surface can be an oxidized layer of silicon carbide. In one version, the band and lip have a combined thermal mass T_m, and the radiation absorption surface has an absorptivity A and a surface area S_a, such that the ratio $(A \times S_a)/T_m$ is from about $4X10^{-5}$ m^2K/J to about $9X10^{-4}$ m^2K/J.